

**STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE TRANSPORTATION REGULATION BOARD**

In the Matter of the Complaint of
Burlington Northern Railroad Company,
176 E. 5th Street, St. Paul, MN
55101 Regarding the South Hiawatha
Avenue Grade Crossing in Pipestone,
Minnesota.

**FINDINGS OF FACT,
CONCLUSIONS OF LAW
AND RECOMMENDATION**

The above-entitled matter came on for hearing before Administrative Law Judge Jan Craig Nelson (hereinafter "ALJ") on October 25, 1995 and November 29, 1995 in the City Council Chambers at the Pipestone Municipal Building located at 119 2nd Avenue S.W., Pipestone, Minnesota 56164.

James M. Hamilton, Attorney at Law, Spence, Ricke & Thurmer, P.A., 325 Cedar Street, Suite 600, St. Paul, Minnesota 55101 appeared on behalf of the Petitioner, Burlington Northern Railroad Company. William P. Scott, Pipestone City Attorney, P.O. Box 689, Pipestone, Minnesota 56164 appeared on behalf of the City of Pipestone. James E. O'Neill, Pipestone County Attorney, P.O. Box 128, Pipestone, Minnesota 56164 appeared on behalf of Pipestone County.

The record closed upon receipt of the Final Memoranda on January 22, 1996.

This report is a recommendation, not a final decision. The Transportation Regulation Board will make the final decision after a review of the record. The Board may adopt, reject or modify the Findings of Fact, Conclusions, and Recommendations contained herein. Pursuant to Minn. Stat. § 14.61, the final decision of the Transportation Regulation Board shall not be made until this recommended decision has been made available to the parties to the proceeding for at least ten days. An opportunity must be afforded to each party adversely affected by this recommended decision to file exceptions and present argument to the Transportation Regulation Board. Parties should contact Mr. Michael G. McKay,

Acting Administrative Director, Transportation Regulation Board, 254 Livestock Exchange Building, 100 Stockyards Road, South St. Paul, Minnesota 55075 to ascertain the procedure for filing exceptions or presenting argument.

STATEMENT OF THE ISSUE

The issue in this case is whether the South Hiawatha Avenue Grade Crossing in the City of Pipestone is hazardous, and if so, whether said crossing shall be closed or other actions taken to improve the safety of said crossing.

Based upon the evidence presented at the hearing, and based upon all of the files, records and proceedings herein, the Administrative Law Judge makes the following:

FINDINGS OF FACT

1. The South Hiawatha Avenue grade crossing is one of twelve (12) highway-railroad grade crossings of the Burlington Northern Railroad (BN) affording access to the City of Pipestone from Highways 23 and 75. (Ex. 43; Ex. 81 p. 5)

2. Beginning from an area southwest of the City of Pipestone, the other crossings are as follows:

- (1) County State Aid Highway (CSAH) 15 (a/k/a 8th Avenue S.W.);
- (2) County Road 55;
- (3) 13th Street Southeast;
- (4) State Trunk Highway (STH) 30 (underpass); (a/k/a 7th Street);
- (5) 6th Street Southeast;
- (6) 5th Street Southeast;
- (7) 3rd Street Southeast;
- (8) East Main Street;
- (9) 2nd Street Northeast;
- (10) Highway 75, at the intersection of 4th Street Northeast;
- (11) County Road No. 67 (a/k/a 9th Street Northeast).

Nine of these crossings are located within the City of Pipestone, along a 1.3 mile section of Burlington Northern Track. (Ex. 25, p.1)

3. The South Hiawatha Avenue grade crossing is located on a portion of South Hiawatha Avenue approximately 1,100 feet long,

lying between STH 30 and STH 23. The crossing is approximately 300 feet north of the intersection of South Hiawatha Avenue and STH 23 and approximately 800 feet south of the intersection of south Hiawatha Avenue and STH 30.

4. The South Hiawatha Avenue grade crossing was constructed at an acute, horizontal angle of approximately 25 degrees in the northeast and southwest quadrants. The northwest and southeast quadrants of the crossing have obtuse angles of approximately 155 degrees. Sight lines at the crossing are deficient in three of the four quadrants. (Ex. 17)

5. The southern approach to the South Hiawatha Avenue grade crossing, from STH 23, is relatively flat. The northern approach to the crossing has a steep vertical curve. (Ex. 13, p.3) Sight lines from the southern approach are open. From the North, however, sight lines are restricted by virtue of the vertical curve, the acute horizontal angle, the existence of several homes and vegetation not located on either highway or railroad right-of-way.

6. The timetable train speed through the City of Pipestone is 49 miles per hour, and the average train speed is 45 miles per hour, classifying this as a high speed rail line. There are approximately 12-15 trains per 24 hour period traveling on this track through the City of Pipestone, which classifies this as a high density rail line. Each train is approximately 1.25 miles in length. These trains carry coal, grain, and general freight including hazardous materials.

7. Average daily traffic (ADT) at the South Hiawatha Avenue grade crossing was approximately 565 vehicles per day in 1994. (Ex. 11) These vehicles include passenger vehicles, trucks, school buses and emergency vehicles. Truck use of the crossing includes use by large hay trucks and semi-tractors pulling modular homes.

8. There is no record of any vehicle-train collision having ever occurred at the South Hiawatha Avenue grade crossing.

9. In December 1992, Pipestone County Highway Engineer David J. Halbersma (Halbersma) asked that the Minnesota Department of Transportation (Mn/DOT) consider two Pipestone area grade crossings "for possible signal projects." (Ex. 2) Halbersma felt that they were "dangerous crossings" which would "someday result in a fatality at one or both." (Ex. 2) One of the crossings

referred to was the South Hiawatha Avenue grade crossing. (Ex. 2, p.2)

10. Among the reasons for Halbersma's concerns about the safety of the South Hiawatha Avenue grade crossing were the horizontal angle, or "skew", the vertical curve on the northern approach to the crossing and the limited sight distances at the crossing. (Ex. 2, pp.2-3) Halbersma's request was denied by Mn/DOT May 4, 1993. (Ex. 3)

11. On October 27, 1993, Halbersma again contacted Mn/DOT, "soliciting opinions to improve the safety" of the South Hiawatha Avenue grade crossing. (Ex. 4) Halbersma acknowledged in his letter to Mn/DOT that "the angle of the track and the grade across the track make it difficult to see approaching trains." Halbersma further stated that a proposed street improvement project was "up for total reconstruction in 1994, giving [the county] an opportunity to consider different alignments and grades." (Ex. 4)

12. In response to Halbersma's request, Ronald F. Mattson, a Professional Engineer and the Assistant Director of Railroad Administration with Mn/DOT, personally inspected the South Hiawatha Avenue grade crossing and made certain recommendations regarding the crossing. Mattson stated:

"After having personally reviewed the . . . grade crossing, the best advice that we can give you from a safety/engineering perspective is to close it. I realize that this may not be the best advice from a political point of view, but it is, if decision criteria are based solely on technical considerations." (Ex. 6)

In the alternative, Mattson advised:

"If you must keep the grade crossing open, you will need to reduce the vertical curves of the approaches and the skewness of the roadway with respect to the track as much as is feasible, within the limits of the geometrics."

"Serious consideration must also be given to installing automatic flashing light signals with gates in conjunction with any roadway improvements done at or near the crossing." (Ex. 6)

13. In early 1994, Halbersma forwarded plans for the reconstruction of South Hiawatha Avenue, including the grade

crossing, to the BN. The plans modified vertical curves somewhat, but made no provision for improving the horizontal angle of the crossing. (Ex. 13, p.2)

14. On April 22, 1994, Joe C. Mooney ("Mooney"), BN Coordinator Public Programs, forwarded to Halbersma an agreement which had been signed by the BN, to widen the grade crossing in conjunction with the reconstruction of South Hiawatha Avenue. (Ex. 7; Ex. 8) Mooney also advised Halbersma in a cover letter that the road profile did not conform to AREA (American Railroad Engineers Association) standards. (Ex. 7)

15. On April 18, 1994, Halbersma appeared before the Pipestone City council at the request of the Board of County Commissioners to discuss the possibility of closing the South Hiawatha Avenue grade crossing. Closure of the South Hiawatha Avenue grade crossing was favored at that time by Aldermen Theel and Elliot and by Mayor Barbara Hansen, but the matter was tabled until the May 2, 1994 council meeting. (Ex. 61)

16. On May 2, 1994, Halbersma again met with the Pipestone City Council to discuss the South Hiawatha Avenue grade crossing. He informed the Council that if the grade crossing were to be closed, the County Commissioners were in favor of designating another street for county/state aid. (Ex. 61) Closure of the South Hiawatha Avenue grade crossing continued to be supported by Mayor Hansen and Alderman Theel, while the majority of the Council supported keeping the crossing open. The Council decided to hold a public hearing to gather input from the citizens on this issue. (Ex. 62)

17. On June 6, 1994, the Pipestone City Council held a public hearing regarding the possible closing of the South Hiawatha Avenue grade crossing. The City Council received a petition signed by 16 residents who reside on South Hiawatha Avenue asking that the crossing be kept open. In addition, the overwhelming majority of those citizens testifying at the hearing, desired to keep the South Hiawatha Avenue grade crossing open. (Ex. 45)

18. On July 7, 1994, Halbersma wrote Mooney, stating that he had reviewed the agreement BN had sent him for widening of the South Hiawatha Avenue grade crossing. He informed Mooney that he expected approval soon from Mn/DOT on the road construction plan, and wanted to update him on Pipestone County's plans. He also advised Mooney that Pipestone County was "aggressively pursuing the placement of gates and lights at the crossing." Halbersma

also notified Mooney that the City of Pipestone had held a public hearing on closing the South Hiawatha Avenue grade crossing, but had an "overwhelming response to keep it open." Halbersma stated that since the "crossing will remain open with or without the gates and lights and with or without the reconstruction of the roadway", he expected the BN to cost share in the expense of widening/replacement of the crossing. Halbersma requested a revised cost estimate, "reflecting some type of cost share . . . before we execute the agreement." (Ex. 10) Mooney had been advised of the public hearing by Halbersma before it was held. (Halbersma testimony)

19. Pipestone County has never executed the agreement provided by Mooney. (Ex. 8)

20. On or about July 12, 1994, Pipestone County obtained Mn/DOT approval and funding for the reconstruction of South Hiawatha Avenue from STH 30 to STH 23. (Ex. 14) A contract for that work was let on August 23, 1994, (Ex. 18) and construction began approximately 4 weeks later.

21. On September 30, 1994, Halbersma again wrote Mooney, recapping a conversation he had with Mooney by phone the same day regarding widening the South Hiawatha Avenue grade crossing and the possible closing of the 13th Street grade crossing. Halbersma again requested cost sharing on the widening/replacement of the South Hiawatha Avenue grade crossing. (Ex. 15) Halbersma also asked Mooney to keep Halbersma updated on any plans for work on the crossing.

22. By mid-October 1994, the South Hiawatha Avenue reconstruction project had been substantially completed. All that remained was to lay a final course or "lift" of asphalt and other miscellaneous items. Neither Mooney nor anyone else at BN was ever advised by Halbersma that the contract had been let, or that the work was underway. As a result, the reconstruction of South Hiawatha Avenue was completed without the grade crossing surface itself having been widened. The road surface, as constructed, conformed to the AREA guidelines referred to in Mooney's letter to Halbersma dated April 22, 1994 (see Ex.7), and the vertical curve on the northern approach to the crossing was slightly improved by the reconstruction. There was no change in the horizontal angle of the crossing.

23. On October 18, 1994, Halbersma submitted to Mn/DOT's District Planning Coordinator, a funding application for the installation of gates and lights at the South Hiawatha Avenue

crossing. (Ex. 16) This Application has been approved and funding is set aside for the installation of gates and lights as part of the State Transportation Improvement Program in 1996. (Ex. 47)

24. On October 21, 1994, Mooney, on behalf of the BN, requested that Mn/DOT review the South Hiawatha Avenue crossing pursuant to M.S.A. 219.39 and requested that the crossing be considered for closure under that statute and under Minn. Stat. M.S.A. 219.074, Subd. 2. (Ex. 20) On that same date Mooney wrote to Halbersma, advising him that "Because the County has refused to agree to close this crossing, we have submitted a request to Mn/DOT for review of the crossing pursuant to M.S.A. 219.39 and have asked that the crossing be considered for closure under the statute and under M.S.A. 219.074, Subd. 2." (Ex. 19) Mooney further advised Halbersma that BN would take no further action in connection with the County's proposal to widen the crossing until Mn/DOT or the Transportation Regulation Board (TRB) "has made a final determination of the need for this crossing and, if it is to remain open, whether gates and lights or some other devices should be installed. (Ex. 19)

25. On April 10, 1995, Mn/DOT responded to Mooney's request for full review of the crossing in a letter addressed to Halbersma with a copy to Mooney. After laying out the pertinent facts and history of the crossing, Robert Swanson, Mn/DOT Director of Railroad Administration, stated the Department's position on the crossing:

"(1) Based on safety concerns, we continue to take the position that the South Hiawatha Avenue crossing should be closed. Our conclusion is based on the poor vertical and horizontal alignment of the roadway in the vicinity of the crossing, the large number of high speed trains at the crossing and the availability of a nearby underpass. We believe the elimination of this crossing would enhance the safety of the traveling public by redirecting the traffic to a better alternative.

(2) If other considerations require the South Hiawatha Avenue crossing to remain open, flashing light signals with gates are strongly recommended. However, because of the poor geometrics of the roadway in the vicinity of the crossing, the installation of active warning devices alone will not adequately address safety concerns at the crossing. In addition to installing flashing light signals with gates, we strongly recommend the county take the necessary steps to further reduce the vertical

curves of the approaches to the crossing and the skew of the roadway with respect to the track as much as feasible. The Pipestone County highway construction plan, identified as S.A.P. 59-630-03, went a long way towards addressing our concerns. However, the work identified at the crossing, lowering the tracks and widening the crossing surface, still needs to be completed to improve the approach grades. We also recommend that trees and shrubs on the railroad and road authority rights of way be cleared out to afford the approaching motorists a less obstructed view of the track.

(3) Mn/DOT does not intend to initiate a hearing before the Transportation Regulation Board concerning this matter as suggested by the Burlington Northern Railroad. Since Mn/DOT offered its initial recommendations concerning the crossing, the county has taken actions to improve safety at the crossing, with additional improvements planned. The Burlington Northern may, however, if it chooses, bring the matter before the Transportation Regulation Board if it feels that some issues are not being addressed.

(4) Mn/DOT continues to encourage the county, city and railroad to enter into a partnership with the state to develop a comprehensive plan to improve safety at railroad-highway grade crossings in the city of Pipestone. The goal of this plan should be to promote and improve safety to the traveling public within the city. We believe this goal can be accomplished by a combination of closing some un-signalized crossings and signalizing others. It is Mn/DOT's opinion that a number of grade crossings within the city could be closed, thereby improving safety in the area, without significantly inconveniencing the traveling public." (Ex. 25)

26. Because Mn/DOT declined to present the matter to the TRB, the BN brought the matter to the attention of the TRB by letter dated May 12, 1995, asking that the Board review the situation with Mn/DOT and make the determination required by Minn. Stat. § 219.40. (Ex. 27)

27. After considering the matter at a number of Board meetings, the TRB on September 15, 1995 issued a Notice and Order for Hearing which was served upon the following parties by U.S.

Mail on September 22, 1995: James Hamilton, Attorney for the BN; David Halbersma, Pipestone County Highway Engineer; Terry Berg, Pipestone City Administrator; Thomas Dwyer, Transportation Communications International Union; State Rep. Richard Mulder; James H. Adams; George Clegg, Jr., United Transportation Union; Ron Mattson, Mn/DOT-Railroads; Pipestone City Offices; and ALJ Jan Craig Nelson.

28. South Hiawatha Avenue provides the shortest and most direct access from STH 23 to the downtown Pipestone business district, including the Calumet/Days Inn Historic Hotel, the Pipestone National Monument, and the Pipestone R.V. Campground.

29. Carl and Nancy Cowan, owners of the Pipestone R.V. Campground, have invested thousands of dollars in national recreational advertising with various publications including Trailer Life, Woodalls, and "AAA" books which show South Hiawatha Avenue as a direct route to their campground. A directional sign on Highway 23 routes campers northbound on South Hiawatha Avenue to the Pipestone R.V. Campground. (Ex. 67)

30. It takes approximately 25 seconds to travel the 1,100 feet from STH 30 to STH 23 on South Hiawatha Avenue. If the South Hiawatha Avenue grade crossing were closed, southbound traffic travelling toward STH 23 from STH 30, would have the following alternate routes:

(1) Turn East and travel on STH 30 through the STH 30 underpass to STH 23, and then proceed South on STH 23 which would require 1 minute and 30 seconds travel time to reach the same location;

(2) Turn to the West on STH 30 and proceed to CSAH 15, aka 8th Avenue S.W., and then proceed South on CSAH 15 to STH 23 which would require 3 minutes and 35 seconds travel time, as compared to 1 minute 48 seconds to reach the same point if you travelled directly on South Hiawatha Avenue to STH 23.

Northbound traffic on STH 23 would have the following alternate routes:

(1) Exit at CSAH 15, aka 8th Avenue S.W., and proceed North on CSAH 15 to STH 30, turn East on STH 30 to South Hiawatha Avenue, and then turn North on South Hiawatha Avenue toward the downtown business district;

(2) Exit at CSAH 15, aka 8th Avenue S.W., and proceed North on CSAH 15 to West Main Street or 2nd Street N.W., turn East and proceed to the intersection of South Hiawatha Avenue;

(3) Continue on STH 23 to the intersection of STH 30; stop and turn East on STH 30 to the intersection of U.S. Highway 75, turn North on Highway 75 and proceed North to a number of streets entering the downtown from Highway 75.

31. The STH 30 underpass is deficient in that it is blocked by flooding on an average of 4 to 5 times per year, for a period of 1 to 2 hours. This flooding occurs if there is over 1 inch of rain and/or a sudden downpour. Records maintained by the Pipestone National Monument on moisture accumulations indicate that there were 6 occasions between May 8, 1995 and September 30, 1995 when there was more than 1 inch of accumulated moisture. In addition, there were 2 other occasions when there was just under 1 inch of rainfall, which may have resulted in flooding if the moisture accumulated in a sudden downpour. A 24 inch storm sewer main runs east to west along STH 30. A total of 4 collection systems are located in the underpass area, 2 on each side of the highway. (Ex. 57) However, the 24 inch storm sewer main dumps into a 20 inch main. When the STH 30 underpass floods, there can be as much as 6 to 8 feet of water present in the underpass.

32. The STH 30 underpass is slightly below standard height, with the underpass measuring 14'1" in height as measured from the middle of the north driving lane, 14'2" in height as measured from the middle of the south driving lane, and 14' in height as measured from the middle of the road. (Ex. 56) The height of the underpass presents no problem for use by emergency vehicles such as fire trucks, or by most trucks operating at a legal load height. However, because the vertical curves approaching the underpass from the east or west are fairly steep, some trucks of legal height experience problems of not being able to make it under the underpass due to the length of the trailer portion of the vehicle. On several occasions each year, trucks carrying hay or modular mobile homes realize they are not able to go under the STH 30 underpass, and must then be backed up with Law Enforcement assistance to use an alternate route. The alternate route most often used at the present time is the South Hiawatha Avenue grade crossing. Trucks which are not able to drive under the STH 30 underpass, cannot presently divert north to 5th Street and then proceed east, over an at-grade crossing equipped with gates and lights, due to the fact that low hanging wires prevent these vehicles from passing under them. Large farm machinery such as combines also may not pass under the STH 30 underpass, and must

divert south over the South Hiawatha Avenue crossing to STH 23. In addition, snow buildup on the roadway surface in the STH 30 underpass also creates problems for trucks or vehicles of legal height being able to negotiate the underpass.

33. The most direct route south to STH 23 from the Pipestone County Law Enforcement Center where the Pipestone County Sheriff's Department, the Pipestone Police Department and the Pipestone Ambulance service are located, is on South Hiawatha Avenue. If the South Hiawatha Avenue grade crossing were closed, the next shortest route to STH 23 would require vehicles to turn east at STH 30, travel under the STH 30 underpass, and turn back to the southwest on a sharp entrance ramp curve off of STH 30 to the right on to STH 23. (See Ex. 53)

34. Law enforcement officials responding to emergencies southwest of Pipestone, are often required to be talking on the radio to the dispatcher while driving en-route to the emergency, and are not able to negotiate the sharp entrance ramp curve from STH 30 to STH 23 in a safe manner. In addition, the entrance ramp curve from STH 30 to STH 23 makes it difficult to see oncoming southbound traffic on STH 23 due to shrubbery and trees located in the median between STH 23 and STH 30 at the location of the intersection of the two highways.

35. Ambulance services in the City of Pipestone also use the South Hiawatha Avenue grade crossing in responding to emergencies to the south and southwest of Pipestone. The South Hiawatha Avenue grade crossing is used approximately 2 to 3 times per year in emergency and non-emergency situations by the ambulance personnel. Of 11 square miles which have been accessed via South Hiawatha Avenue in the past, each may be reached by the use of STH 30 underpass, by means of CSAH 15, or by other routes shown on Exhibit 55. However, these alternate routes involve additional distance and time in emergency situations when "every second counts". Using the STH 30 underpass to the sharp entrance ramp curve on STH 23 is not an acceptable alternative to the ambulance service for safety reasons. Because there is no back window in the ambulance, it is harder for them to see, and subsequently treacherous for them to attempt to negotiate the sharp entrance ramp curve from STH 30 to STH 23. Further, the STH 30 underpass has been flooded in the past when the ambulance has been required to respond to an emergency southwest of Pipestone.

36. The Pipestone Fire Department also uses the South Hiawatha Avenue grade crossing as the most direct route in responding to fires south and west of Pipestone. The fire

department has used the South Hiawatha Avenue grade crossing 14 times in the 6 year period between 1989 and 1994. Of these 14 incidents, nearly one-third involved backup, mutual aid calls to assist the Jasper Fire Department. The remaining calls involved 1 car/train accident, 1 car accident, 2 car fires, and 2 grass fires. A fire doubles every 5 minutes, and a delay in response time to arrive at a fire may have a significant impact upon the fire department's ability to extinguish the fire or control it.

37. Like the ambulance service, the areas to which the fire department would respond may be reached by the use of STH 30 underpass, by means of CSAH 15, or by other routes shown on Exhibit 55. Again, these alternate routes would require additional distance and time to respond to the emergency. The STH 30 underpass may not be available if it is flooded, and the alternate route travelling west to CSAH 15 (aka 8th Avenue Southwest), turning left on CSAH 15 and proceeding south to the intersection of STH 23, is not a preferred route, in that 8th Avenue Southwest is a more residential area, and the cross streets have only yield signs versus stop signs which are on the South Hiawatha Avenue route. In addition, the 8th Avenue Southwest route would take the fire trucks and emergency vehicles past a city park where many children are present.

38. The Pipestone Police Department maintained no record of its department's emergency use of the South Hiawatha Avenue grade crossing. To the best of the Chief of Police's knowledge, "it is only used during routine patrols." (Ex. 78)

39. The South Hiawatha Avenue road construction project which was completed in late 1994, was funded by municipal state aid funds at a cost of \$117,000.00. (Ex. 12; Halbersma Testimony) If the South Hiawatha Avenue grade crossing is closed, South Hiawatha Avenue from STH 30 to STH 23 would lose its designation as a County State Aid Highway, and the County would be required to refund the State 24/25ths of the cost of the project or \$112,320.00.

40. The Pipestone County Sheriff, the Pipestone City Chief of Police, the Pipestone City Fire Chief, and the Director of the Pipestone Ambulance Service, all oppose the closing of the South Hiawatha Avenue grade crossing.

41. Following re-construction of South Hiawatha Avenue from STH 30 to STH 23, the County was required to place signs in the roadway to funnel the cars across the narrow South Hiawatha Avenue grade crossing. During November 1995, the BN undertook temporary

re-construction and widening of the South Hiawatha Avenue grade crossing surface to accommodate the wider roadway created by the road re-construction.

42. At the time the South Hiawatha Avenue road re-construction project took place, the City contracted with Carstenson Construction to install water and sewer improvements on South Hiawatha Avenue. The cost to the City of Pipestone was \$8,634.40 for said improvements.

43. Several citizens, civic and business people appeared at the hearing and unanimously voiced opposition to the closing of the South Hiawatha Avenue grade crossing.

44. The combination of horizontal and vertical angles of the South Hiawatha Avenue crossing, the current and maximum train speeds over the crossing (45 m.p.h. and 49 m.p.h. respectively), the distance between "clearance points" north and south of the track, and the time required for certain vehicles to cross from one "clearance point" to another, creates a situation for some vehicles traveling South on South Hiawatha Avenue which cannot be safely addressed by the installation of gates and lights alone. Given current standards for the activation of gates and lights (20 seconds before the train's arrival at the crossing), a 40 foot long heavy vehicle would clear the crossing by only 5 feet if it began to move from a stop position (at the required distance from the rail) just before the gates and lights activated. (See Ex. 81)

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS OF LAW

1. The Minnesota Transportation Regulation Board has jurisdiction over the subject matter of the hearing, proper notice of the hearing was timely given and all procedural requirements of rule or law have been fulfilled. This case is, therefore, properly before the Administrative Law Judge.

2. Minn. Stat. § 219.074, Subd. 1, provides in pertinent part as follows:

"219.074 GRADE CROSSING CHANGES.

Subdivision 1. **Agreements; hearing.** Public officials having the necessary authority and a railway company operating the railroad may agree to the

vacation, relocation, consolidation, or separation of grades at grade crossings. If agreement cannot be reached concerning the location, manner of construction, or a reasonable division of expense, either party may file a petition with the board, setting forth the facts and submitting the matter to it for determination. The board shall then conduct a hearing under chapter 14 and shall apply the rules developed under section 219.073 in coming to a determination. The commissioner may also bring matters concerning vacation, relocation, consolidation, or separation of grades at public grade crossings to the board for determination. If the board determines that the vacation, relocation, consolidation, or separation is consistent with the standards adopted under section 219.073, the board may order the crossing vacated, relocated, consolidated, or separated."

3. Minn. Stat. § 219.073 provides as follows:

"219.073 COMMISSIONER'S RULES ON GRADE CROSSINGS.

In accordance with chapter 14, the commissioner of transportation shall adopt rules by december 1, 1991, that contain standards governing the establishment, vacation, relocation, consolidation, and separation of grades at public grade crossings. In adopting standards, the commissioner shall consider that the number of grade crossings in this state should be reduced and that public safety will be enhanced by reducing the number of grade crossings."

4. The rules referred to in Minn. Stat. § 219.073 have not been adopted as of this date.

5. Minn. Stat. § 219.39 provides as follows:

"219.39 DANGEROUS CROSSINGS; COMPLAINTS; HEARINGS.

Upon written complaint authorized by the governing body of a city or county, by the board of supervisors of a town, or by authorized officers of a subject railroad, alleging that a railroad crossing a street, road, or highway in the city, town, or county is dangerous to life and property, and giving the reasons for the allegations, the commissioner shall investigate the matters contained in the complaint, and, when necessary, initiate a hearing before the board."

6. Minn. Stat. § 219.40, Subd. 1, provides as follows:

"219.40 DETERMINATION; ORDER; FLAGGER OR SAFETY DEVICE.

Subdivision 1. **Board determination.** (a) If a complaint is made under section 219.39, the board shall determine, after investigation by the commissioner or after hearing, whether the crossing is hazardous and may require the railroad company to (1) provide flaggers at the crossing, (2) adopt safety devices as the board deems necessary to protect the crossing properly, (3) remove any structure, embankment, or other obstruction to the view, (4) close the crossing complained of or other crossing in the vicinity, or (5) construct an overhead or maintain an underground crossing and divide the cost between the railroad company, the town, county, municipal corporation, or state transportation department interested, on terms and conditions as may seem just and equitable."

7. The South Hiawatha Avenue grade crossing is a hazardous crossing which is dangerous to life and property.

8. The South Hiawatha Avenue grade crossing is a vital and essential component of the roadway system in Pipestone, and therefore should not be closed.

9. Because of the poor geometrics of the roadway in the vicinity of the South Hiawatha Avenue grade crossing, the installation of active warning devices alone will not adequately address safety concerns at the crossing. Therefore additional safeguards will need to be taken to protect life and property.

10. Permanently widening the crossing to the width of the roadway will further improve the approach grades. Removing trees and shrubs on the railroad and road authority rights of way and upon adjacent private property will afford motorists a less obstructed view of the track and improve it's safety. Requiring the installation of a street light on the South side of the crossing would help Northbound vehicular traffic identify the presence of a train at the crossing until gates and lights are installed.

11. Prohibiting certain vehicles (except under the direction of Law Enforcement personnel) from travelling South on South Hiawatha Avenue across this grade crossing is necessary due to the steep vertical curve and poor sight lines, and will further enhance the safety of the crossing. Placement of advance motor vehicle traffic warning signs on STH 30 indicating that South

Hiawatha Avenue grade crossing is closed to certain vehicles will minimize inconvenience to the motoring public.

12. The Administrative Law Judge's Memorandum attached hereto is made a part of these Conclusions of Law and is incorporated herein by reference.

THIS REPORT IS NOT AN ORDER, ONLY A RECOMMENDATION. THE TRANSPORTATION REGULATION BOARD WILL ISSUE ITS ORDER WHICH MAY ADOPT OR DIFFER FROM THE FOLLOWING RECOMMENDATIONS.

Based on the foregoing Conclusions of Law, the Administrative Law Judge recommends that the Transportation Regulation Board issue the following:

ORDER

IT IS HEREBY ORDERED that the South Hiawatha Avenue grade crossing shall remain open and the following safety measures shall be undertaken and completed as soon as possible:

- (1) The City/County shall install flashing warning lights and gates at the crossing;
- (2) The City/County shall erect an overhead street light on the South side of the South Hiawatha Avenue grade crossing, until the flashing warning lights and gates are installed;
- (3) The BN shall permanently widen the crossing surface of the South Hiawatha Avenue grade crossing;
- (4) Prohibit school buses, vehicles (regardless of length) carrying explosive substances or flammable liquids, or liquid gas under pressure as cargo or part of a cargo, from traveling south across the South Hiawatha Avenue grade crossing from STH 30 to STH 23, unless at the direction of law enforcement personnel, who shall visually determine from a location further to the North that there are no southbound trains approaching from the north, so as to enable the prohibited vehicle to safely cross the BN tracks;
- (5) Order and direct the erection traffic signs notifying said vehicles of the prohibited travel across the South Hiawatha Avenue grade crossing from STH 30 to STH 23;

- (6) Pipestone County, City of Pipestone and BN authorities shall cooperatively inspect and immediately remove any brush, vegetation or trees growing in the rights of way of the BN, County or City, that obstruct views of approaching trains at the South Hiawatha Avenue grade crossing;
- (7) Pipestone County, City of Pipestone and BN authorities shall cooperatively inspect and determine whether there is a need to trim or remove the growth of trees, brush, or vegetation located on private property which abuts the rights of way of the BN, County or City, that obstruct views of approaching trains at the South Hiawatha Avenue grade crossing, and if so, the City of Pipestone shall order its timing or removal pursuant to Minn. Stat. § 219.384, Subd. 1.
- (8) Stop signs currently placed at the crossing shall remain there until the flashing warning lights and gates are installed.

Dated this 9th day of February, 1996.

JAN CRAIG NELSON
Administrative Law Judge

NOTICE

Pursuant to Minn. Stat. § 14.62, subd. 1, the Agency is required to serve its final decision upon each party and the Administrative Law Judge by First Class Mail.

Reported:Taped, no transcript prepared. Tape Numbers: 22,591, 22,592, 22,593, 22,594, 22,674, 22,675, 22,676 and 21,677.

MEMORANDUM

In its brief, the BN argued that its burden of proof in this proceeding was to demonstrate, by a preponderance of the evidence, that: (a) the South Hiawatha Avenue grade crossing is hazardous; (b) it is not physically or economically feasible to correct the

design deficiencies at this crossing which create the hazardous conditions; (c) the proposed installation of automatic devices such as gates and lights will not, in and of themselves, adequately address the hazards present at this crossing; (d) reasonable alternate access exists; and (e) closure of the crossing is the only reasonable method of addressing the hazards present at the South Hiawatha Avenue grade crossing. They further argue that the city of Pipestone and County of Pipestone bear the burden of proof as to their claim that the South Hiawatha Avenue grade crossing is vital to the economic and physical well-being of the community, i.e., that there is a "demonstrated need" for the crossing.

Minn. Stat. § 219.40, Subd. 1, requires only that there be a determination that the crossing is hazardous before the Transportation Regulation Board may require action to be taken to improve safety at the crossing or order its closure.

There is no dispute by the parties to this action, that the South Hiawatha Avenue grade crossing is hazardous. The vertical curve on the northern approach, the acute angle of the crossing, as well as sight line deficiencies clearly make this crossing dangerous to life or property. The real issue in this case, is whether to close the crossing or to allow the crossing to remain open with additional safeguards, such as gates and lights, to be installed.

The County conceded that it is not physically or economically feasible to correct the design deficiencies at the crossing at this time. The horizontal alignment of the crossing cannot reasonably be altered so as to even begin to approach the ideal 90 degree angle. To do so would require that significant portions of private property be acquired as additional highway right-of-way, including the acquisition and removal of at least one home. David Halbersma, the County Highway Engineer testified that improvement of the crossing angle would require construction of a curve in South Hiawatha Avenue and that state-imposed standards for such curves (both vertical and horizontal) cannot be met within the existing right-of-way or within any additional right-of-way which might be reasonably obtained. Halbersma further testified that the cost of acquiring the necessary right-of-way would be prohibitive.

It is also readily apparent that it is not economically feasible to build a grade separation at this crossing. While Ron Mattson testified that the only completely safe crossing is a

grade separation, to build one would be cost prohibitive. Additionally, to require the railroad to provide flaggers at the crossing also appears not to be feasible. While flaggers would greatly increase safety at the crossing, they would also create other problems due to the fact that the trains would need to stop to allow the flaggers to get off the train and back on again after the train had cleared the crossing. Because of the number of crossings on the 1.3 mile stretch of track running through the city, and due to the length of the trains (averaging 1.25 miles in length), this would result in blocking a number of other crossings in the City of Pipestone, while the train proceeded across the South Hiawatha Avenue grade crossing.

While the BN agrees that installation of automatic devices such as flashing lights and gates, would substantially increase safety for much of the traveling public using the South Hiawatha Avenue grade crossing, they argue that gates and lights alone do not adequately address the hazards at the crossing for all of the vehicles currently using the crossing. The ALJ agrees.

Both Ron Mattson and Robert Swanson of Mn/DOT testified at length regarding the nature of the hazards which exist at the South Hiawatha Avenue grade crossing. One of Swanson's principal concerns is the ability of large, heavy vehicles such as semi tractor-trailers, school buses, and similar vehicles, to use the crossing safely. This concern arises from the physical characteristics of the crossing and from certain statutory stop requirements imposed on such vehicles. Minn. Stat. § 169.28, Subd. 1 provides that:

"169.28 CERTAIN VEHICLES TO STOP AT RAILROADS.

Subdivision 1. **Stop required.** The driver of any motor vehicle carrying passengers for hire, or of any school bus whether carrying passengers or not, or of any Head Start bus whether carrying passengers or not, or of any vehicle carrying explosive substances or flammable liquids, or liquid gas under pressure as a cargo or part of a cargo, before crossing at grade any track or tracks of a railroad, shall stop the vehicle not less than 10 feet from the nearest rail of the railroad and while so stopped shall listen and look in both directions along the track for any approaching train, and for signals indicating the approach of a train, except as hereinafter provided, and shall not proceed until safe to do so." (emphasis mine)

Likewise, Minn. Stat. § 169.29 requires certain equipment to stop at a railroad grade crossing at a point not less than 10, nor

more than 50 feet from the nearest rail of the railway, prior to crossing the tracks.

As indicated in the findings, the combination of horizontal and vertical angles of the crossing, the current and maximum train speeds over the crossing (45 m.p.h. and 49 m.p.h. respectively), the distance between "clearance points" north and south of the track, and the time required for certain vehicles to cross from one "clearance point" to another from a stop, creates a situation which cannot be safely addressed with reference to those vehicles by the installation of gates and lights. Given current standards for the activation of gates and lights (20 seconds before the train's arrival at the crossing), a 40-foot long heavy vehicle would clear the crossing by only 5 feet if it began to move from a stopped position (at the required distance from rail) just before the gates and lights activated. (see Ex. 81)

The factual and engineering criteria upon which the calculations in Exhibit 81 are based, assume a 40 foot long vehicle. Since August 1, 1995, the maximum legal vehicle length in Minnesota has been increased to 70+ feet. The longer the vehicle, the more time the vehicle will require to traverse the distance between clearance points. Further, the calculations set forth in Exhibit 81 do not take into account factors such as slope of the approach or adverse weather conditions, such as snow covered or icy roadways. Such conditions will obviously increase the time for such vehicles to safely traverse the crossing.

These concerns, however, are limited to vehicles such as school buses, vehicles carrying explosive substances or flammable liquids, or liquid gas under pressure. Other vehicles, including semi tractor-trailers not carrying one of the materials described above, would not be required to stop at the grade crossing unless the flashing lights and gates were activated. Ron Halbersma testified that the crossing was designed and engineered for vehicles to cross at up to 35 miles per hour. If vehicles were not required by statute to stop at the rail, they would easily clear the tracks, because they would not be starting from a stop at the stop bar located 8 feet from the gate arm as set forth in Mr. Swanson's calculations. If they stopped because the gates and lights were activated, they would have ample time after the train had passed, to safely proceed across the tracks.

Swanson was very clear in his opinion that the minimum activation period of 20 seconds is insufficient at this crossing for heavy vehicles such as school buses and semi tractor-trailers who are required to stop at the crossing, regardless of whether

the gates and lights were activated. On cross-examination, Swanson acknowledged that the devices can be programmed to provide a warning more than 20 seconds before the train reaches the crossing. However, increasing this activation time period creates the risk of motorists disregarding the devices and attempting to cross the tracks before the train reaches the crossing. These safety concerns can be adequately addressed without increasing the warning time provided by the gates and lights, by prohibiting certain vehicles (those required by statute to stop at the crossing) from using the South Hiawatha Avenue grade crossing.

Based on these concerns, the BN contends that the only reasonable alternative is to close the South Hiawatha Avenue grade crossing. The ALJ disagrees. While gates and lights do not provide the necessary margin of safety for a small number of vehicles and school buses travelling South across the South Hiawatha Avenue grade crossing, they do provide adequate protection for the vast majority of other vehicular traffic proceeding South across the crossing.

Traffic (including school buses and other vehicles required by statute to stop at the rail before crossing the tracks) travelling North from STH 23 toward STH 30 will be able to safely traverse the crossing since they do not have to deal with the vertical curve that is present on the North approach, the placement of the gates and lights will allow vehicular traffic to stop closer to the tracks, and the sight lines are considerably better than approaching the crossing from the North.

Additionally, vehicles that are prohibited from using the South Hiawatha Avenue grade crossing which have not been able to negotiate the STH 30 underpass, and must back up and take an alternate route, should be allowed to use the South Hiawatha Avenue grade crossing if accompanied by law enforcement officials who will determine from another location that there is no southbound train approaching the crossing from the North.

The BN also argues that there are satisfactory alternate routes available, and therefore the South Hiawatha Avenue grade crossing should be closed. The ALJ disagrees. While there is an alternate grade separation located approximately .25 miles from the South Hiawatha Avenue grade crossing that allows southbound traffic on South Hiawatha Avenue to access STH 23 via STH 30, this route is deficient in that it floods approximately 4-5 times per year for usually an hour or two at a time. When this happens, emergency vehicles would be forced to use alternate routes that require a much greater distance to be travelled through

residential areas, and past a city park where children are present.

The BN argues that the South Hiawatha Avenue grade crossing is occupied by moving trains each year for more than 97 hours (12 trains per day, each in excess of 1 mile in length, traveling at 45 m.p.h.; $12 \times 365 = 4,380$ trans per year, each train occupying the crossing for 1 minute, 20 seconds) while the STH 30 underpass is only blocked for 10 hours per year. This argument is not persuasive, since it is the amount of time that the crossing is blocked at one stretch that is more important (i.e., 2 hours per flooding vs. 1 minute 20 seconds for a train moving across the South Hiawatha Avenue grade crossing).

In addition, the STH 30 underpass route is deficient because the bridge is restricted to 14 feet in height. While this is usually not a problem for legally loaded vehicles, there are occasions when even legally loaded vehicles are not able to negotiate the underpass, because the vertical curve on either side of the underpass is so steep, that the tractor portions of vehicles with long trailers start to go back up on the other side of the underpass, before the rear wheels of the trailer are at the bottom of the underpass. This results in the vehicles having to stop and back up and take an alternate route to get to STH 23 or even continue on STH 30. South Hiawatha Avenue grade crossing provides the safety valve for such vehicles to bypass the STH 30 underpass. However, it is important that any such vehicle which finds itself in such a predicament, have the ability to cross over the South Hiawatha Avenue grade crossing. This can be safely accomplished by having law enforcement officers direct and guide their crossing over the tracks at the South Hiawatha Avenue grade crossing, while having other officers determine from a vantage point further North on the BN track that there is no southbound train coming.

The BN argues that the STH 30 underpass and other routes such as CSAH 15 to STH 23 offer emergency vehicles adequate alternative routes to areas south and southwest of Pipestone which they must serve. Again, their argument is not persuasive. It was clear from the testimony of the Sheriff, Fire Chief, and Director of the ambulance service, that the STH 30 underpass route was not an acceptable alternative to them due to the flooding discussed above, as well as the treacherous entrance ramp curve that they would have to negotiate to get from STH 30 to STH 23. The other routes which the BN argues are adequate alternatives, would require longer travel through residential areas, past a city park

where children are likely to be, and would require greater travel time.

The BN argues that the closing the South Hiawatha Avenue grade crossing will have little or no significant economic impact on the City of Pipestone or its businesses. Once again, the ALJ disagrees. Although there was no statistical or numerical evidence presented at the hearing as to the economic impact that closure of the South Hiawatha Avenue grade crossing would have upon the business community, it is clear that the citizens of Pipestone County would have to absorb the \$112,300.00 which would need to be refunded to the State of Minnesota because of the loss of State Aid designation if the South Hiawatha Avenue grade crossing were closed. Additionally, at least one business has spent thousands of dollars in national recreational advertising showing the South Hiawatha Avenue grade crossing as the most direct route to their campground, the Pipestone National Monument and the Song of Hiawatha Pageant grounds.

Indeed, the South Hiawatha Avenue grade crossing is a vital access route into the city as evidenced by the ADT of the various crossings leading into the city. South Hiawatha Avenue's ADT is 565 as of 1994, and is expected to increase due to the reconstruction of South Hiawatha Avenue by approximately 10 %. This compares to an ADT of 472 for the 3rd Street crossing as of 1986 (Ex. 35); an ADT of 375 for the 5th Street S.E. crossing as of 1986 (Ex. 36); an ADT of 150 for the 3rd Avenue S.E. crossing as of 1986 (Ex. 37); an ADT of 350 for the 13th Street S.W. crossing as of 1993 (Ex. 38); an ADT of 45 for the Township road 25 crossing as of 1993 (Ex. 39); and an ADT of 500 for the CSAH 15 crossing as of 1993 (Ex. 40). While STH has an ADT of 6,600 as of 1992 (Ex. 34), this crossing is provided by means of a grade separation (i.e., the STH 30 underpass), and is a main East-West through highway. The City of Pipestone has functionally classified South Hiawatha Avenue as a "major collector". (Ex. 64)

Although the BN argued that the vast majority of the parks, recreation areas, and tourist destinations located in the City of Pipestone would not be accessed by means of the South Hiawatha Avenue grade crossing, such is not the case. The major tourist attractions are the Pipestone National Monument, the Song of Hiawatha Pageant and the Watertower Festival, which are all located off of South Hiawatha Avenue at the North end of the city. In addition, the historic Calumet/Days Inn Hotel is located on South Hiawatha Avenue and Main Street in downtown. (Ex. 1)

The BN also argued that the County had gone forward and incurred the cost of reconstruction of South Hiawatha Avenue knowing that Mn/DOT had recommended closure of the crossing and knowing that the BN was seeking closure. The ALJ is not convinced that the County or City of Pipestone acted improperly. While it is true that from a safety/engineering perspective, Mn/DOT had recommended closure if such a decision was based on "technical considerations" alone, the same letter made it clear that there were other considerations that might well result in the City/County deciding to keep the crossing open. The City/County acted prudently in assessing the impact of such a closing on its community by holding a public hearing and seeking community input before deciding to keep the crossing open and embarking on the South Hiawatha Avenue reconstruction project. That input was overwhelmingly in favor of maintaining this crossing.

Although the BN implies that the County Highway Engineer was intentionally keeping the BN in the dark with regard to Mn/DOT's recommendation to close this crossing, the ALJ is satisfied that the County Highway Engineer was truly ignorant of the BN's ability to seek closure of this crossing through this type of proceeding. This crossing does not belong to the BN alone. The BN and the City of Pipestone are "entitled to jointly occupy the right-of-way in the conduct of their assigned duties..." (Ex. 49)

The BN argued that the lack of credibility of the County Highway Engineer as evidenced by his contradictory testimony at the hearing as opposed to written minutes of the Pipestone City Council meeting for example, makes his testimony unbelievable. Although the minutes of the Pipestone City Council meeting of May 2, 1994 indicated that "Halbersma noted that the County Commissioners were in favor of closing South Hiawatha and designating other streets for County/State Aid," Halbersma testified at the hearing that this statement in the minutes was not accurate. He testified the County Commissioners had never taken a formal position on the closing of South Hiawatha Avenue, and that what he told the council was that if South Hiawatha were closed, then the Commissioners were in favor of designating some other street(s) for County/State Aid. The purported statement in the Pipestone City Council meeting minutes was not written by Halbersma, and his explanation was believable.

This is further corroborated by John "Jack" R. Keers, Chairman of the Pipestone County Board of Commissioners. He testified that although the Commissioners had discussed closing South Hiawatha Avenue, they took no formal position on that issue. He did indicate that the County Commissioners believed

that they had the cooperation and agreement of all the parties, including the Railroad, since the Railroad had reviewed the reconstruction plans for South Hiawatha Avenue, and had sent the County a "signed" agreement to widen the crossing surface in connection with the project.

In conclusion, the ALJ disagrees with the BN's argument that the only viable alternative is to close the South Hiawatha Avenue grade crossing. It is abundantly clear to the ALJ that the South Hiawatha Avenue grade crossing can safely be kept open and available to a vast majority of motor vehicle traffic. Certainly the installation of gates and lights will address safety concerns for passenger vehicles, pickups, and even long trucks not required to stop at the rail by statute. The only safety concern that lights and gates do not address is school buses, vehicles carrying hazardous materials and other vehicles required to stop within 10 feet of the rail, regardless of the presence of the gates and lights. Because of the vertical curve on the North side of the crossing, combined with the poor sight lines, it will be necessary to take some additional precautions prohibiting such vehicles from traveling southbound over the crossing, except at the direction of Law Enforcement. However, such precautions do not need to be taken on the northbound vehicles, due to the relatively flat vertical curve and the vastly improved sight lines. Prohibiting school buses, vehicles carrying hazardous materials, and other vehicles required by statute to come to a stop at the rail from proceeding South across the South Hiawatha Avenue grade crossing will not only serve to protect life but property as well, and may well avoid a disaster which could result from a collision with a high speed train.

Implementing the recommended order in this report will provide the travelling public with access to the City of Pipestone including both it's business and tourist attractions, and insure the continued safety and integrity of this important grade crossing.

J.C.N.